



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

11A

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/667,497

09/23/2003

Tsugio Okamoto

117273

1913

25944 7590 01/16/2008  
OLIFF & BERRIDGE, PLC  
P.O. BOX 320850  
ALEXANDRIA, VA 22320-4850

EXAMINER

SHAH, MANISH S

ART UNIT

PAPER NUMBER

2853

MAIL DATE

DELIVERY MODE

01/16/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/667,497

Applicant(s)

OKAMOTO ET AL.

Examiner

Manish S. Shah

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2007.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20-24 is/are allowed.
- 6) ☒ Claim(s) 1,2,9-13 and 17-19 is/are rejected.
- 7) ☒ Claim(s) 3-8 and 14-16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/18/07</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-2, 9-13 & 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Mitsuhiro (# JP 2001-113690).

Mitsuhiro discloses:

- A belt conveying mechanism for an ink-jet recording apparatus (figure: 1), comprising: a plurality of rollers (figure: 1); a conveyor belt for conveying a record medium on a surface of the conveyor belt, the conveyor belt wrapped around the plurality of rollers (element: 21A-21C; figure: 1-2); a recessed portion formed in the surface of the conveyor belt (hole) (element: 21a-1 to 21a-5, figure: 3); an ink retaining portion for retaining ink, the ink retaining portion disposed upstream in a traveling direction of the conveyor belt and ranging from a bottom surface of the recessed portion to a rear surface of the conveyor belt (element: 61A-64A, figure: 1-2); and an ink absorber for absorbing the ink retained by the ink retaining portion from the rear surface of the conveyor belt by contacting with the ink retaining portion, the ink absorber disposed at the rear surface of the conveyor belt (element: 61A-64A; 61B-64B; 61C-64C; 61D-64D; figure: 1-2).

- The portions of the bottom surface of the recessed portion excluding the ink retaining portion are water-repellent, and wherein the ink retaining portion is non-water-repellent.

- An ink-jet recording apparatus, comprising: the belt conveying mechanism and an ink-jet head for ejecting ink onto the record medium (element: 31-34; figure: 1) being conveyed by the conveyor belt of the belt conveyor (figure: 1).

- A belt conveying mechanism for an ink-jet recording apparatus (figure: 1), comprising: a plurality of rollers; a conveyor belt for conveying a record medium on a surface of the conveyor belt, the conveyor belt wrapped around the plurality of rollers (element: 21A-21C; figure: 1-2); a recessed portion formed in the surface of the conveyor belt (hole) (element: 21a-1 to 21a-5, figure: 3); an ink retaining portion for retaining ink, the ink retaining portion disposed upstream in the traveling direction of the conveyor belt and ranging from a bottom surface of the recessed portion to a rear surface of the conveyor belt; an ink absorber for absorbing the ink retained by the ink retaining portion from the rear surface of the conveyor belt by contacting with the ink retaining portion, the ink absorber disposed at the rear surface of the conveyor belt (element: 61A-64A; 61B-64B; 61C-64C; 61D-64D; figure: 1-2); a sensor for detecting a position of the ink retaining portion formed in the conveyor belt (element: 28, figure: 1-2); and a drive mechanism that moves the ink absorber based on the position of the ink retaining portion detected by the sensor and on the traveling speed of the conveyor belt such that, when the ink retaining portion is at a position corresponding to the ink absorber, the ink retaining portion is brought into contact with the rear surface of the

Art Unit: 2853

conveyor belt, and that when the ink retaining portion is at a position not corresponding to the ink absorber, the ink retaining portion is apart from the rear surface of the conveyor belt (figure: 1).

- A belt conveying mechanism for an ink-jet recording apparatus (figure: 1), comprising: a plurality of rollers; a conveyor belt for conveying a record medium on a surface of the conveyor belt (element: 21A-21C; figure: 1), the conveyor belt wrapped around the plurality of rollers; a recessed portion formed in the surface of the conveyor belt such that ink moves towards at least one width end portion of the conveyor belt in accompaniment with the traveling of the conveyor belt; and an ink retainer for retaining the ink moved in the recessed portion, the ink retainer disposed at the width end portion (element: 21a-1 to 21a-5, figure: 3).

- The bottom surface of the recessed portion is water-repellent (figure: 1-2).
- The recessed portion is formed such that the ink moves towards both width ends of the conveyor belt in accompaniment with the traveling of the conveyor belt (figure: 1-4).

- The ink retainer selectively assumes a position at which it comes into contact with the conveyor belt or a position at which it does not come into contact with the conveyor belt (figure: 1-4).

- An ink-jet recording apparatus, comprising: the belt conveying mechanism and an ink-jet head for ejecting ink onto the record medium being conveyed by the conveyor belt of the belt conveyor (figure: 1-4).

***Allowable Subject Matter***

2. Claims 20-24 are allowed.
3. Claims 3-8 & 14-16 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

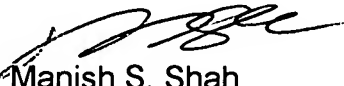
4. Applicant's submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on 07/18/2007 prompted the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 609.04(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manish S. Shah whose telephone number is (571) 272-2152. The examiner can normally be reached on 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Manish S. Shah  
Primary Examiner  
Art Unit 2853

MSS

1/8/08